

Review and prospect of the research on teachers' competence in private colleges and universities

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ABSTRACT. *At the present stage, most colleges and universities are in the transition period, and the quality and ability of college teachers are also in the new wave of reform. In addition, the strong mobility of teachers in domestic private colleges and universities is a bottleneck for the selection, education, utilization and retention of teachers in the transition in private colleges and universities. This paper sorts out the research on teachers' competence in private colleges and universities in recent years, laying a theoretical foundation for the application of quality improvement and construction of teachers in private colleges and universities.*

KEYWORDS: *University teachers competency model index*

1. Introduction

In today's knowledge economy society, the core competitiveness of an organization tends to demand more and more talents. As an indispensable subject in the study of human capital, the knowledge and ability structure of college teachers, who are not only special talents, but also a group to cultivate talents, determines the teaching quality of colleges and universities and the development potential of the future generation.

2. Concept combing

2.1 Definition of competency

The concept of competency starts from management, and is widely used in psychology later. In the field of human resource management, competency is applied in the selection, cultivation, retention and utilization of personnel, providing theoretical basis for various fields of human resource management. This concept was first proposed by professor McClelland (1973), and subsequently modified by McLagan (1990) in the research. In the later stage, the more classic expressions

were Boyatzis (), Spencer () and Hay group (). From the definition of the concept of competency by scholars, most of them still regard competency as the difference between general performance and excellent performance, which covers knowledge, skills, comprehensive quality and other aspects (see table for details).

Table 1 Summary of the classic concepts of competency

	The author	provenance	concept
In 1973,	McClelland	Tes-ting for Competence Rather than 'Intelligence'	Knowledge, skill, substance, or motivation that is directly similar to or related to work or work performance or other important achievements in life.
In 1990,	McLagan	Competencies :the next generation, Training & Development	Ability to have a significant impact on the production of good results
In 1994,	Boyatzis	Rendering into competence the things that are competent	Any trait that a person possesses and USES to produce successful performance in a life role, this potential characteristic of the individual, may be motivation, trait, skill, self-image or social role, or certain knowledge.
In 1993,	Spencer	Competency assessment methods: History and state of the art	Can put a job (or in the organization, culture) excellent performers and generally distinguish individual potential, the characteristics of the deep, it can be a motive, characteristics, self-image, attitudes or values, some in the field of knowledge, knowledge or skills - anything that can be measured or count, and be able to significantly distinguish between good performance and the performance of ordinary individual characteristics.
	Hay group,	http://www.hayresoureesdirect.haygroup.com/Competency/AssessmentSurveys/Competency_Portfolios/Overview.w.Aspx	Any motivation, attitude, skill, knowledge, behavior, or personal characteristic that distinguishes the averager from the high performer.

2.2 Teacher competency

Teacher competency refers to the collection of predictable and measurable personality traits that teachers possess related to the successful implementation of teaching work. It is the professional knowledge, professional skills, personality and drive that can be expressed in different ways. At present, there have been many achievements in the research of teacher competency.

According to domestic researches, the typical perspective is from teachers of Guangzhou University called XinJiang and Meng Weiqing [2] in 2003, both think individual teachers' competence is related to the successful and professional knowledge, professional skills and professional values, and belongs to the teacher's individual characteristics. Teachers' competence is the essential factors for successful teaching, such as the discipline knowledge, teaching skills, and values. Teachers' competence is also the important unit of teacher education training objectives. In 2004, Zeng Xiaodong puts forward that teachers' competency is the knowledge, skills and values possessed by individual teachers, which will have a certain impact on teachers' work performance in some aspects. [3] In 2013, Qi Yanchao and Yu Fei of Harbin Engineering University held that the competency of college teachers is the difference between excellent teachers and ordinary teachers in college teachers. [4]

According to foreign researches, as early as 1987, Broadfoot puts forward that teachers' professional competence is the integration of their educational activities and theories and practices with professional standards, while educational skills, ability to carry out teaching activities and teachers' professional attitude are three important components of teachers' competency structure. Then in the study of teachers' competence, scholars put forward some views such as Boz Tikvah (SA Skvortsova) and Tony Eva (YSVtornikova). They think teachers' competency has the characteristics of gradation and contains three levels —the basic level, key ability and professional ability. The basic level is the a necessary ability for any professional teachers and is the foundation of their work; the key ability is also necessary for teachers to do a better job; special ability is a kind of teaching skill which is needed for the specific profession of teacher. Hall (Hol D) and Gram, Aktas (S) claimed that "competency" helps people perform well at work and is the sum of the knowledge, skills and characteristics. And on this basis, they define teachers' competence from the nine dimensions—professional competence, research ability, the ability to courses (including course development, design, organization, implementation and so on), lifelong learning ability, ability to social culture (with regional, national, national values, democracy, human rights, knowledge background, teamwork, etc), emotional ability, communication skills, information and communication technologies, environment ability. Goch (PSC Goh), and other scholars believe that "teachers' competence" is the ability related to the management of class and student behavior. In teaching practice, teachers' competence is the sum of abilities of mastering various teaching skills, knowing how to communicate with students, understanding the advantages and disadvantages of students and potential, grasping the students' learning needs, doing according to their aptitude; and becoming a professional level of teachers needs the sum of knowledge, skills, and values. It can be seen that, although scholars at home and abroad generally have the same understanding of teacher competency, foreign scholars associate teacher competency more with curriculum, student needs and professional abilities, and believe that teacher competency is a combination of various ability elements that can promote teachers to better organize and carry out teaching work. [5]

3. Competency indicators and models

At present, most of the researches on teachers' competency by domestic and foreign scholars build a competency model, because the construction of the competency model can more clearly understand the connotation of teachers' competency, provide a theoretical basis for the evaluation of teachers' competency, and better carry out the human resource management of teachers. According to competency model, in order to complete a certain work and achieve a certain performance target, a series of different competency elements are required to be possessed by the person in charge, including different motivation expression, personality and quality requirements, self-image and social role, knowledge and skill level, etc.

3.1 Foreign research

BiSi kauf (Bissechoff) and Robert used a structured questionnaire on university teachers' competence characteristics including eight theoretical factors such as learning environment, university teachers' professional commitment, discipline, colleges and universities teachers' teaching foundation, teachers in colleges and universities, college teachers reflect on the ability to cooperate, effectiveness and leadership. Finally they summarize two factors model, namely the education competent (Educativecompetence) and cooperative competence (Collaborative competence). Australian state of Victoria independent schools association (AISV) points out that the university teachers' competence by using a structured questionnaire a multi-factor model structure, composed of 15 factors--ability to communicate, plan and organization, work standard, adaptability, relationship building, developing friendship, continuous learning, technical or professional knowledge, mentoring, decision, to the learners as the center, focus on quality, information monitoring, innovation, action, is essential to the success of teaching behavior. Danielson proposed a competency model with four dimensions, including planning and preparation, teacher environment monitoring, teaching and professional responsibility. Through large sample empirical research, Bisschoff and Grobler established a teacher competency model with two factors including educational competency and collaborative competency, including eight dimensions, namely, learning environment, professional commitment, discipline, teaching basis, teacher reflection, cooperative ability, effectiveness and leadership. [10-11]

3.2 Domestic research

In recent years, domestic scholars have also used various methods of competency model construction to study the construction of competency model. Zhang yiyuan and ma jianhui constructed the competency model of vocational teachers by behavioral event interview, which mainly includes three dimensions: professional competency, psychological competency and behavioral competency. Yao rong makes an empirical analysis of the competency characteristics of college

teachers by means of questionnaire survey and statistical methods, and obtains a seven-dimensional competency model of college teachers: personality characteristics, teaching attitude, development characteristics, teaching skills, professional skills, attention to students, interpersonal communication. Zhai haiyan and CAI binglou put forward that the competency of university teachers should be composed of three parts: individual dimension, work task dimension and university development strategy dimension, namely, "person-job-strategy" three-dimensional integration model. Through the analysis of structured questionnaires, wang yu proposed that the competency model of college teachers was composed of such factors as innovation ability, information acquisition ability, interpersonal understanding, sense of responsibility, relationship building, thinking ability and achievement orientation. CAI xiaojun puts forward in the research project of "research and construction of university teachers' competency model" that university teachers' competency is manifested as professional knowledge and ability, work motivation, self-image, social role or personal characteristics, which is the decisive factor for teachers' successful actions in education, teaching or scientific research. [6]

4. Construction method of teacher competency model

For the construction of the competency model, the most classic is the behavioral event interview method developed by McClelland, which is a method to acquire the competency characteristics related to high performance by interviewing excellent employees and average employees with performance. In later studies, many scholars combined the behavioral event interview method with the questionnaire method, designed the questionnaire according to the combination of knowledge, skills and personality traits obtained from the behavioral event interview method, and obtained the indicators with the highest frequency according to the questionnaire results, so as to construct the competency model.

Most domestic scholars still choose to use these two classic methods, and use SPSS, Amos and other statistical software for analysis. The statistical methods mainly include exploratory factor analysis, phase project analysis, reliability test and confirmatory factor analysis (xiang qiqi, 2018). It is worth mentioning that, in order to determine the weight of the competency index, professor saadi of the university of Pittsburgh (A. L. Saaty) in the early 1970 s proposed for decision making and planning process with complicated factors, including economic, management, and technical problems, a new method to the analytic hierarchy process (AHP), the method is a qualitative judgment and quantitative calculation of the effective combination of practical decision analysis method, through the elements of grouping the complex problem to orderly class hierarchy, and the ratio of the relative importance of quantitative relation is given, then prioritize determine the overall weight of these elements, finally establish the weight of each factor. In order to reduce the influence of individual subjective factors, the importance ranking and scale value of these indicators are determined through Delphi method (zheng xin and wang cheng, 2017). In addition, in 2013, the domestic scholar QiYan also used the factor analysis method, the behavioral event interview and questionnaire

investigation. on the basis of the five point scoring method is used to assess the importance of the teachers' competence characteristics. SPSS17.0 exploratory factor analysis was carried out on the competence characteristics——factors of extraction method is using principal component analysis (pca), maximum rotating orthogonal rotation method USES variance. Finally four factors were extracted. According to the results of exploratory factor analysis, four key feature factors were renamed, namely, personal charm, teaching level, scientific research ability and interpersonal communication. Based on the four-dimensional model composed of 24 factors obtained after exploratory factor analysis, AMOS7.0 is used for confirmatory factor analysis of the model, and it is found that the four-dimensional model of college teachers' competency fits well.

5. Summary and prospect

5.1 Summary and review

Nowadays, iceberg model and onion model are recognized as two mature theories, which provide theoretical basis for the construction of teacher competency model to some extent. In terms of the existing research, the construction of the competency model of college teachers is mainly from the dimensions of professional knowledge, teaching and scientific research ability, professional ethics and innovation consciousness. Domestic research on teachers' competency model mostly focus on the basic theory, mainly from the professional knowledge, scientific research ability, professional ethics and innovation consciousness dimension to build teacher competency model in the study. Most of the models in the premise of not tested as a general standard of evaluation of teachers, thus the reliability and validity of the results of the study are doubtful, and lack of empirical, operability, laying particular stress on theoretical research. At present, a lot of western education research method systems regard empirical research as the main characteristics. From the student perspective, they emphasis on teaching and learning on the basis of using quantitative research and qualitative research, as well as the combination of quantitative and qualitative study of hybrid research, so the domestic research about teachers' competence should follow the development trend of the international education research, and focuses on the empirical research.

On the choice of indicators and tools, domestic and foreign scholars use a combination of qualitative and quantitative methods, and the mainstream approach is still based on behavioral event interview and questionnaire survey method, combined with use of some other auxiliary method. Thus current teacher competency model lacks of practice verification, which is also one of the research blank.

5.2 Research prospect

On the whole, domestic and foreign scholars for the research of teacher competency model still stays in the stage of theoretical analysis. The competency model combined with human resource management in the actual application is seldom used. The combined model is only used to put forward the corresponding improvement suggestions according to the competence index system. The combined model is never verified and actual used. As the core determining force of a country's talent development, teachers' competency model should be established according to the development needs and taken as the theoretical basis to improve teachers' quality, teachers' career development plan and teachers' human resource management. At present, in the field of higher education, scholars' research on the competence of teachers in private colleges and universities is very rare, and the construction of the competence model of teachers in private colleges and universities is blank. Therefore, it is necessary to build the competence model of teachers in private colleges and universities based on the particularity of teaching objectives in private colleges and universities.

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